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Descriptors-\*Attitude Tests, \*Changing Attitudes, \*Leadership Training, \*Participation, Questionnaires, Research, Test Validity, Transfer of Training

This study describes the procedures used to evaluate the effect of 28 leadership development programs for young and middle-aged adults. The educational experiences were divided into 4 groups -- low, medium, high, and very high -- depending on the level of the learners' participation and the extent to which the learning was focused on their interests and experiences. These factors were rated on a subjective basis by the author. From a variety of approaches to predicting successful group leaders, a series of short questions that actually discriminated successful from unsuccessful group leaders were selected. Three attitude questionnaires were put together in a leadership inventory and studies of its reliability ranged from .70 to .90 (odd-even and test-retest). Studies of its validity in eight field situations ranged from .23 to .69 with an average of about .50. These are multiple correlations and were established using the Aitken method with rank order correlations and the Jenkins method with product-moment correlations. The findings revealed that high participation led to a more significant attitude change than low participation. (nl)



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Studies on the Affect of Participation in

Training and Supervisory Programs

by

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There are three major areas that can be measured in an attempt to assess the impact of training or supervisory programs:

- 1. changes in participants' on-the-job effectiveness.
- 2. changes in knowledge, attitudes, and skills of participants.
- 3. responses of participants to what they think they have learned.

The most valid way of evaluating an educational program is to assess the change in behavior of people who participated in the program and perhaps compare it with people who did not participate. In practice it is usually very difficult to find accurate methods of measuring the appropriate behaviors, and to reduce the many other intervening variables accompanying the educational program.

The knowledge, attitudes and skills of the participants can be measured before and after a training program to see if they improve. However, a change in knowledge does not necessarily mean that there has been learning, if by learning we mean a change in behavior. Somehow the changes in knowledge, attitudes and skills have to be related to on-going behavior.

The responses of participants about what they think they learned in an educational program is a useful source of information, especially in planning a similar program. It is difficult for participants to be objective about what they learned and they often respond by describing their level of satisfaction with the educational experience. There is not necessarily any relationship between satisfaction and learning, and spending many hours in a program may be a sufficient reason for feeling that something must have been learned.

### The Background of This Study

Nine years ago I embarked on a project to try to find more satisfactory procedures for selecting group leaders in community serving organizations. After trying many different approaches and techniques, a series of attitude questionnaires emerged as a very effective method for selecting successful



group leaders<sup>1</sup>. During these nine years this leadership research project has branched out in many different directions. One of the most interesting areas, and the one described in this report, was the use of the leadership inventory in assessing the impact of a variety of training and supervisory experiences that were designed to improve the effectiveness of group leaders.

This study, then, describes the procedures used to evaluate the affect of twenty-eight leadership development programs for young and middle-aged adults. It is an example of procedure number two above - measuring changes in attitudes of participants - coupled with an established relationship between these attitudes and success on-the-job.

### Validation of the Attitude Scales

The Dimock Leadership Inventory in its latest revision is composed of eighty-two questions answered on a five point Likert type scale, or by a true, uncertain or false response. The inventory is made up of the friendliness scale of the Guilford-Zimmerman Temperament Survey, a modification of the California F Scale (Adorno, et al, 1950) and questions made up by the author. It was designed to measure a flexible, cooperative, participative orientation to working with others. It has been validated on two hundred group leaders working in eight different settings. All the leaders completed the inventory in advance of their group work in an agency or camp and at the conclusion of their work their supervisors assessed their competence or the quality of their leadership. Correlations of the attitude scales with success on-the-job ranged from .23 to .69 in the different situations. Figure one below illustrates the predictive ability of the leadership inventory and establishes its usefulness as a measure of success on-the-job.

Best 40%  Best 70%  Best 90%	Group	Chances	in	100	of	being	effect iv	e leader	's	
Best 70%	Best 40%					,				
Root 90%	Best 70%									92
DUSL 7U/0 1-1	Best 90%	 			_				<b>1</b> 85	

Figure 1.

A summary of 198 group leaders who worked in one of eight different situations shows that effective leaders<sup>2</sup> can be selected 92 times out of 100 by not taking the 30% of applicants who scored lowest on these attitude scales. If the lowest 60% of applicants were rejected, effective leaders could be selected 97 times out of 100.



Dimock, H.G., "Selecting and Training Group Leaders", Montreal: Centre for Human Relations and Community Studies, Sir George Williams University, 1968.

<sup>2.</sup> Effective leaders are defined as people who did a passable job as assessed by their supervisors. 18% of the sample were assessed as ineffective leaders.

## Participation in Leadership Development Programs

In my research I have given my leadership inventory on a before and after basis to participants in a variety of leadership development situations. These have included many formal University courses, formal residential training programs, informal on-the-job training, and on-the-job supervisory programs. As these studies accumulated it became clear that the level of participation in the programs was correlated with the degree of attitude change. By participation I mean the extent to which the learners had a say in some of the decisions which affected them. In practice this was assessed as the importance placed on their ideas and needs and the extent to which their experiences were used as the basis for learning.

The previous section reported the close relationship between leadership inventory scores and on-the-job success. There does not seem to be a test-retest affect using the inventory. The three control groups to date show no change and one high participation group that was split with each half doing either the odd or even questions before and the others after showed changes similar to other groups in comparable experiences. Thus change in attitudes as measured by the inventory can more safely be felt to be related to real learning.

### Affect of Participation on Learning

The twenty-eight different educational experiences have been divided into four groups depending on the level of learners' participation in the experience and the extent to which the learning was focused on their interests and experiences. These factors were rated on a subjective basis by the author.

- Low Participation 4 groups: 2 groups are University lecture courses in the social sciences (used as control groups); 1 group is a control group for an inner city youth study project; and 1 is a supervised work experience with very low participation.
- Medium Participation 6 groups: all are supervised work experiences with some informal on-the-job training and include some participation.
- High Participation 10 groups: eight groups are University courses in group development which involve learners in many of the decisions which affect them and through role-playing, demonstrations and films focus on many of their on-going experiences; I was a guidance group; and I was a supervised work experience involving high participation.

Dimock, H.G., "Group Guidance for Disadvantaged, Inner City Youth",
 Montreal: Centre for Human Relations and Community Studies, Sir
 George Williams University, 1968.

Very High Participation - 8 experience based learning groups.

All were human relations training groups: 1 a University course, 3 executive training programs, 1 human relations for nurses, and 3 general lab. programs for heterogeneous groups.

These twenty-eight groups were all assessed as to the amount of attitude change shown by the learners: no change (0); some change - modest change at the .05 level of significance (\*); and considerable change - a great deal of change at the .01 level of significance (\*\*). Figure 2 shows the results.

	Low Participation		Medium Participation
0	Political Science Class	*	Kanawana Camp Supervision '60
0	Economics Class	**	Group Advisors Supervision
0	Rotary Camp Supervision	0	Group Supervisors Supervision
0	Inner City Youth Control	0	Program Workers Supervision
		*	Kanawana Camp Supervision *67
		*	Howell Camp Supervision
	High Participation		Very High Participation
**	Group Development Class '61	**	Group Behavior Class
**	Group Development Class '62	**	Executive Training '62
∴ ★	Group Development Class '63	*	Executive Training '63
*	Group Development Class '64	**	Executive Training '64
**	Group Development Class 65	*	Nurses Training
*	Group Development Class *66	**	Sask. H.R. Training
*	Group Development Class '67	*	Teen H.R. Training
*	Group Development Class '68	0	Sir George H.R. Training
**	Sherbourne Camp Supervision		- -
0	Inner City Youth Training		

Figure 2. The amount of learning under varying degrees of participation.

0 = no change \* = some change \*\* = considerable change

The affect of a participatory orientation to teaching adults on attitude change shows up quickly when six of ten groups show no change in low and medium participation situations and only two of eighteen groups in high and very high participation show no change.

#### Review of Research Procedures

From a variety of approaches to predicting successful group leaders, a series of short questions were selected that actually discriminated



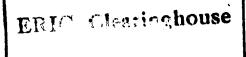
successful from unsuccessful group leaders. Three attitude questionnaires were put together in a leadership inventory and studies of its reliability ranged from .70 to .90 (odd-even and test retest). Studies of its validity in eight field situations ranged from .23 to .69 with an average of about .50. These are multiple correlations and were established using the Aitken method with rank order correlations and the Jenkins method with product-moment correlations.

Test retest methods with control groups and a split half method with a training group were used to check the affect of re-doing the inventory. These control groups also checked the influence of "daily living" on the attitude scores.

Most of the learning groups studied before and after their training or supervisory experience were less than thirty in number and a t test checking the significance of a difference between the means of two small correlated samples was used to assess the change. The results were interpreted using Fisher's table of t with .05 considered as significant change and .01 as very significant change.

Many of the groups involved in the research volunteered to participate and in all cases they were offered a report on their scores and a summary of the research to date. About three quarters of the participants did receive information on their scores and this process seemed to reduce or eliminate any resistance to the research.

Hedley G. Dimock January, 1969.



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